

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1- 31. (Canceled)

32. (New) A system for using outside ventilation air to maintain indoor comfort and air quality, comprising:

a sensor system for detecting outdoor and indoor air temperatures;

an air delivery system for delivering the outside ventilation air to an interior space; and

a controller that:

receives an outdoor air temperature and an indoor air temperature detected by the sensor system;

stores the detected outdoor air temperature and the detected indoor air temperature detected by the sensor system;

calculates a predicted indoor temperature range and a predicted outdoor temperature range based on the stored outdoor air temperature and the stored indoor air temperature; and

regulates operation of the air delivery system as a function of predicted indoor and outdoor air temperature ranges and a predetermined indoor air temperature range.

33. (New) The system of claim 32, further comprising a user interface that displays the predicted and predetermined indoor air temperature ranges and communicates with the controller.

34. (New) The system of claim 32, further comprising a communication link connected to the controller for connection to an outside data source.

35. (New) The system of claim 34, wherein the communication link obtains a weather prediction.
36. (New) The system of claim 32, wherein the controller regulates an indoor air temperature at which cooling by the outside ventilation air is discontinued based on predicted temperatures.
37. (New) The system of claim 32, wherein the controller regulates an airflow rate based on predicted temperatures.
38. (New) The system of claim 33, wherein the controller regulates an airflow rate based on the desired indoor air temperature range.
39. (New) The system of claim 32, wherein the controller controls an airflow rate of the outside ventilation air in proportion to a cooling demand.
40. (New) The system of claim 32, wherein the controller controls the air quality by regulating a volume of the outside ventilation air delivered by the air delivery system.
41. (New) The system of claim 32, further comprising an air conditioner, wherein the controller operates the air conditioner during early morning hours to pre-cool a building.
42. (New) The system of claim 34, wherein the controller regulates operation of the air delivery system based on information received from the outside data source over the communication link.
43. (New) The system of claim 32, wherein the controller activates the air delivery system when the outdoor air temperature is lower than the indoor air temperature.
44. (New) The system of claim 32, wherein the air delivery system includes at least one of a vapor compression unit and an evaporative cooling unit to cool the outside ventilation air.

45. (New) A method of maintaining indoor air comfort and air quality using outside ventilation air, comprising:

detecting an outdoor air temperature and an indoor air temperature;

storing the detected outdoor air temperature and the detected indoor air temperature;

calculating a predicted indoor temperature range and a predicted outdoor temperature range based on the stored outdoor air temperature and the stored indoor air temperature; and

regulating operation of an air delivery system as a function of the predicted indoor and outdoor air temperature ranges and the predetermined indoor air temperature range.

46. (New) The method of claim 45, further comprising inputting a desired indoor air temperature through a user interface.

47. (New) The method of claim 45, further comprising connecting the controller to an outside data source via a communication link.

48. (New) The method of claim 47, further comprising obtaining a weather prediction via the communication link.

49. (New) The method of claim 45, further comprising regulating an indoor air temperature by controlling movement of outside ventilation air based on predicted temperatures.

50. (New) The method of claim 45, further comprising activating at least one of a vapor compression unit and an evaporative cooling unit to cool outside ventilation air.

51. (New) The method of claim 45, further comprising activating the air delivery system when the outdoor air temperature is lower than the indoor air temperature.

Amendments to the Drawings:

The attached replacement drawing sheet makes changes to Fig. 1 and replaces the original sheet with Fig. 1.